

REMARKS

This communication is a full and timely response to the Office Action dated June 1, 2009. Claims 1, 2, 5-11, and 13-24 remain pending. By this communication, claim 21 is amended.

Applicants appreciate the acknowledgement that claims 1, 2, 5-11, 14-20, and 22-24 are allowable.

Beginning on page of the Office Action, claims 13 and 21 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Kimura et al (U.S. Patent No. 5,739,650). Applicants respectfully traverse this rejection.

Independent claims 13 and 21 broadly encompass the embodiments illustrated and described in Applicants' disclosure. Claim 13 recites the following:

A method for providing a compressor version-up service comprising:
an operating specifications evaluation step in which a driving device for identifying a motor constant of a permanent magnet motor is provided to a user of a compressor having said permanent magnet motor installed therein, and said driving device drives said permanent magnet motor installed in said compressor to extract a motor constant of said permanent magnet motor including a counter-electromotive voltage constant;
an efficiency monitoring step in which the efficiency of a product is monitored based on variation in said motor constant of said permanent magnet motor obtained in said operating specifications evaluation step, said compressor with said permanent magnet motor being installed in said product; and
an efficiency reduction reporting step in which an efficiency improvement measure including such as the timing of exchanging said compressor is reported by an indicator, when the efficiency of said product obtained in said efficiency monitoring step is reduced.

Contrary to the PTO's position, *Kimura* fails to disclose or suggest every feature recited in claim 13 as alleged.

Kimura discloses a brushless DC motor system in which a control circuit receives a position detection signal output from a position sensor to calculate a phase of a counter-electromotive voltage and a cycle of the position detection signal

to calculate a rotation speed of the motor in response to the cycle. See *Kimura*, col. 15, lines 26-56. The control circuit associates a phase of an inverter output voltage to the phase of the motor counter-electromotive voltage so that the motor can operate at peak efficiency relative to the current operating conditions. *Id.*, col. 16, lines 4-25.

Kimura, however, fails to disclose or suggest at least an efficiency monitoring step as recited in Applicants claims. In the rejection, the PTO maps the efficiency monitoring feature of claim 1 to the concept described at col. 8, lines 1-50 of *Kimura*. Here, *Kimura* describes the correlation between the "neutral-point voltage of the armature coils and the motor efficiency." This correlation, however, does not include a step wherein the efficiency of a product is monitored based on the **variation in a motor constant** (i.e., counter-electromotive voltage constant) of the permanent magnet motor. Rather, *Kimura* discloses that attaining peak efficiency is based on **the phase of the motor counter-electromotive voltage**.

While Applicants' are fully aware that during examination claims are given there broadest reasonable interpretation, the PTO has not provided any evidence that one of ordinary skill would reasonably interpret the phase of the motor counter-electromotive voltage as described by *Kimura* as analogous to the counter-electromotive voltage constant as recited in Applicants' claims and described in Applicants' disclosure. More importantly, the courts have established that when applying the broadest reasonable interpretation to a claim term, the "interpretation" must be consistent with Applicants' Specification. *Phillips v. AWH Corp.*, 415 F.3d 1403 75 USPQ2d 1321 (Fed. Cir. 2005). In *Phillips*, the Court found that when employing the "broadest reasonable interpretation" standard, **the PTO determines**

the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted of one of ordinary skill in the art." In Re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 [70 USPQ2d 1827] (Fed. Cir. 2004). Indeed, the rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support for antecedent basis in a description so that the meaning of the terms in the claims may be ascertainable by reference to the description." 37 CFR 1.75 (d)(1), 415 F.3d at 1316, 75 USPQ2d at 1329.

In addition to the deficiencies noted above, Applicants could find no evidence in the citation of *Kimura* provided by the Examiner or in the disclosure of *Kimura* otherwise for Applicants' claimed efficiency reduction reporting step. Based on careful analysis, *Kimura* merely discloses the efficiency levels at which the system can be operated. This record fails to disclose or suggest at least "an efficiency improvement measure including the timing of exchanging said compressor being reported by an indicator," as recited in claim 13.

For at least these reasons, a *prima facie* case of anticipation with respect to claim 13 has not been established.

Independent claim 21 broadly encompasses the features described and illustrated in Applicants' disclosure by reciting the following:

A freezing/air conditioning device comprising:
a permanent magnet motor operated at variable speed by an inverter having an automatic tuning function or a program of the inverter, the inverter being able to identify a motor constant of a motor;
a compressor driven by said permanent magnet motor, for discharging a refrigerant circulating through a refrigeration cycle; and

a monitor device for monitoring performance such as a reduction in efficiency by determining said motor constant identified during operation, wherein reduction in the efficiency is reported by an alarm.

As discussed above, *Kimura* discloses the use of a control circuit that associates a phase of an inverter output voltage to the phase of the motor counter-electromotive voltage so that the motor can operate at peak efficiency relative to the current operating conditions of the motor. Applicants respectfully submit that the detecting the phase of the motor counter-electromotive voltage is not analogous to extracting a motor constant as recited in Applicant's claim. As a result, *Kimura* fails to disclose or suggest a permanent magnet motor as recited in claim 21.

Furthermore, *Kimura* also does not appear to disclose or suggest a monitor device as recited in Applicants' claims. Upon careful inspection, *Kimura* fails to disclose or suggest a component or device that **issues an alarm due to a reduction in efficiency based on an identified motor constant**. For at least these reasons, a *prima facie* case of anticipation has not been established with respect to claim 21.

To properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. See Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Because *Kimura* fails to disclose the combination of features recited in claims 13 and 21, Applicants' respectfully submit that these claims are not anticipated as alleged. For this reason and those discussed in detail above, withdrawal of this rejection is respectfully requested.

Conclusion

Based on the foregoing remarks, Applicants respectfully submit that claims 1, 2, 5-11, and 13-24 are allowable and this application is in condition for allowance. In the event, any unresolved issues remain the PTO is encouraged to contact Applicants' representative identified below.

Respectfully submitted,

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